



Drone/sUAS Pilot Training Curriculum Competencies

2019-2020 Course Description:

DWS offers a comprehensive training and education aeronautics curriculum on small Unmanned Aircraft Systems (sUAS) which purpose is designed to educate, empower, enable and encourage students to learn the art and science of drone technology and how they can apply what they learn in the classroom, in labs and workshops and in the field to obtain careers in this growing industry. This best in class instruction and materials offers strategies and information that provides the breadth and depth of instruction to be a successful and proficient drone pilot and learn the rules, regulations and laws, and in particular Part 107, Remote Pilot – Small Unmanned Aircraft Systems Study Guide, required by the Federal Aviation Administration and using the Pilot’s Handbook for Aeronautical Knowledge, to pass their test and thereby become certified as a drone pilot.

Pre-Requisites Prior to Enrollment in the Program

The targeted population is any student who is at least 18 years of age with proof of birth certificate if requested by DWS and who also has a High School Diploma or G.E.D and a willingness to learn. Minimum of a cell phone or preferably a tablet is required.

Measurable Performance Objectives (MPO): Upon course completion the successful student will be capable of:

1. Exhibiting a thorough understanding of Unmanned Aerial Vehicles (UAV) and Unmanned Aircraft Systems (UAS).
2. Having a thorough knowledge of the rules, regulations and laws, and in particular Part 107, of the Federal Aviation Administration (FAA) with regard to drone operations.
3. Understanding the anatomy of a drone and the various drones currently on the market and what they can and cannot do.
4. Knowledge of the individual components of the drone, both vocabulary and function.
5. Understanding the UAV technology
6. Understanding the principles of flight including Newton’s Laws of Motion, Bernoulli’s Principle, airspeed, gravity and other key topics to help understand flight of the drones.
7. Aeronautical Decision Making (ADM)
8. How to plan an sUAV flight including pre and post flight procedures
9. Flight safety and assessment of conditions including weather, site issues and other obstructions.
10. Aerial photography and Videography and its concepts including learning about light, shutter speed, lens filters and drone positioning.
11. Creating a “story line” to their videos.
12. Editing their raw data to create a video
13. How to add music and narration to the video.
14. The world of 3-D mapping from the sky through Drone Deploy by creating and calculating measurements for a project.
15. The world of business and how to become a business person as a drone operator by learning how to generate wealth, how to repair their credit, fix their credit report and increase their credit score, which entity is the best one to start a drone business, the tax benefits of starting their drone business, how to finance their drone business, how to contract with other sUAS operators and drone businesses and what the legal clauses mean. They will review a contract for hiring a business and one for their client.

16. How to build a drone.
17. How to fly a drone on a simulator.
18. How to fly a drone in various situations in the field.
19. Getting all the important links needed to operate their drone.
20. How to get a job as a drone operator.

Method of Instruction:

- 40% - Lecture
- 15% - Audio/Visual aids
- 25% - Lab & Workshop
- 20% - Field

Assessment Outcomes:

All assignments, tests, quizzes and drone performance training will be used to objectively determine if the student has attained a level of competence that enables them to meet the course objectives and Federal Aviation Administration (FAA) rules, regulations and requirements and in particular Part 107 for unmanned aircraft systems to enable them to pass the exam.

The following will be used in providing the objective assessments:

1. Class Attendance
2. Class Participation
3. Flight Participation
4. Quizzes and Tests
5. Drone assimilator training
6. Drone flying
7. Completing assignments

Course Requirements:

1. Reading and understanding the materials provided
2. Successfully completing class homework assignments
3. Successfully completing in-class assignments

Evaluation Methodology:

1. 90% or more class attendance
2. 70% - classroom participation, in-class assignments
3. 85% - simulator training
4. 90% - drone proficiency
5. 75% - FAA passing score on practice test

Evaluation Criteria:

- 20%
- 10%
- 20%
- 25%
- 25%

TOTAL

100%

Course Content Outline - See attached DWS Curriculum Synopsis and DWS Course Schedule

Qualifications/Expertise of Instructor:

- ✓ Lawyer to discuss the FAA rules, regulations and requirements.
- ✓ UAS/UAV qualified operators with proficiency in FAA rules, regulations and requirements and pilot aviation operations.

Enrollment

A minimum number of ten (10) and maximum of thirty-five (35) students per class.

DWS reserves the right to change its course, instructors, curriculum, schedule and teaching order, and length of time of each class and course.